

CLAIMS

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2 The invention claimed is:

3 1. A multi-terminal electrical safety switch for simultaneously closing
4 or simultaneously opening electrical circuits connected thereto,
5 comprising:

6 a) a terminal block; and

7 b) a current path completer/breaker;

8 wherein said terminal block is for having the electrical circuit
9 connected thereto;

10 wherein said current path completer/breaker is replaceably engaged
11 with said terminal block;

12 wherein said current path completer/breaker simultaneously completes
13 current paths through said terminal block when engaged with said
14 terminal block and thereby simultaneously closes the electrical
15 circuits connected to said terminal block; and

16 wherein said current path completer/breaker simultaneously breaks
17 the current paths through said terminal block when removed from said
18 terminal block and thereby simultaneously opens the electrical
19 circuits connected to said terminal block so as to allow the
20 electrical circuits connected to said terminal block to be safely
21 worked on without any inadvertent closing of any of the electrical
22 circuits by virtue of said current path completer/breaker being
23 physically removed from said terminal block.

24 2. The switch as defined in claim 1; further comprising an insulative
25 block;

26 wherein said insulative block replaceably attaches to said terminal
27 block; and

28 wherein said insulative block is replaceably engaged by said current
29 path completer/breaker.

- 1 3. The switch as defined in claim 1, wherein said terminal block is
2 generally rectangular-parallelepiped-shaped.
- 3 4. The switch as defined in claim 2, wherein said terminal block has
4 at least one pair of terminals;
5 wherein each pair of terminals of said at least one pair of
6 terminals of said terminal block are transversely aligned with each
7 other; and
8 wherein each pair of terminals of said at least one pair of
9 terminals of said terminal block is associated with a current path
10 of the at least one current path.
- 11 5. The switch as defined in claim 4, wherein said terminal block has
12 a top surface;
13 wherein said terminal block has a pair of side edges;
14 wherein said at least pair of terminals of said terminal block is
15 disposed on said top surface of said terminal block; and
16 wherein each terminal of said at least one pair of terminals is
17 disposed at an associated side edge of said pair of side edges of
18 said terminal block.
- 19 6. The switch as defined in claim 4, wherein said terminal block has
20 at least one socket; and
21 wherein said at least one socket electrically communicates a pair
22 of terminals of said at least one pair of terminals of said terminal
23 block with each other when said current path completer/breaker is
24 replaceably engaged with said terminal block thereby completing a
25 current path of the at least one current path associated therewith.
- 26 7. The switch as defined in claim 6, wherein said terminal block has
27 a top surface; and

1 wherein said at least one socket is disposed on said top surface of
2 said terminal block.

3 8. The switch as defined in claim 6, wherein each socket of said at
4 least one socket in said terminal block comprises a pair of strips;
5 and
6 wherein said pair of strips of each socket of said at least one
7 socket in said terminal block are transversely aligned with each
8 other.

9 9. The switch as defined in claim 8, wherein each strip of said pair
10 of strips of said at least one socket of said terminal block is
11 electrically conductive;
12 wherein each strip of said pair of strips of said at least one
13 socket of said terminal block is bendable; and
14 wherein each strip of said pair of strips of said at least one
15 socket of said terminal block is resilient.

16 10. The switch as defined in claim 8, wherein each strip of said pair
17 of strips of said at least one socket of said terminal block has a
18 flat portion;
19 wherein each strip of said pair of strips of said at least one
20 socket of said terminal block has a substantially U-shaped portion;
21 and
22 wherein said substantially U-shaped portion of each strip of said
23 pair of strips of said at least one socket of said terminal block
24 extends from said flat portion of an associated strip of said pair
25 of strips of said at least one socket of said terminal block.

26 11. The switch as defined in claim 10, wherein said flat portion of each
27 strip of said pair of strips of said at least one socket of said
28 terminal block is electrically communicatively attached to an

- 1 associated terminal of said at least one pair of terminals of said
2 terminal block; and
3 wherein said substantially U-shaped portion of each strip of said
4 pair of strips of said at least one socket of said terminal block
5 depends into said terminal block.
- 6 12. The switch as defined in claim 8, wherein said terminal block has
7 a primary partition; and
8 wherein said primary partition of said terminal block separates said
9 pair of strips of each socket of said at least one socket of said
10 terminal block from each other.
- 11 13. The switch as defined in claim 12, wherein said terminal block has
12 a longitudinal center line; and
13 wherein said primary partition of said terminal block extends along
14 said longitudinal centerline of said terminal block.
- 15 14. The switch as defined in claim 12, wherein said terminal block has
16 at least one secondary partition; and
17 wherein each secondary partition of said at least one secondary
18 partition of said terminal block separates adjacent terminals of
19 said at least one pair of terminals of said terminal block from each
20 other.
- 21 15. The switch as defined in claim 14, wherein each secondary partition
22 of said at least one secondary partition of said terminal block
23 intersects said primary partition of said terminal block; and
24 wherein each secondary partition of said at least one secondary
25 partition of said terminal block extends from one
26 side edge of said pair of side edges of said terminal block to the
27 other side edge of said pair of side edges of said terminal block.

- 1 16. The switch as defined in claim 2, wherein said insulative block is
2 substantially rectangular-parallelepiped-shaped.
- 3 17. The switch as defined in claim 6, wherein insulative block
4 insulatively protects said at least one socket of said terminal
5 block when attached to said terminal block; and
6 wherein insulative block insulatively protects said current path
7 completer/breaker when said current path completer/breaker is
8 engaged therewith.
- 9 18. The switch as defined in claim 14, wherein insulative block has a
10 first recess;
11 wherein said first recess in said insulative block is defined by a
12 floor; and
13 wherein said first recess in said insulative block replaceably
14 receives said current path completer/breaker.
- 15 19. The switch as defined in claim 18, wherein said insulative block has
16 a top surface; and
17 wherein said first recess in said insulative block depends in said
18 top surface of said insulative block.
- 19 20. The switch as defined in claim 18, wherein said insulative block has
20 a second recess;
21 wherein said second recess in said insulative block is defined by
22 a ceiling; and
23 wherein said second recess in said insulative block replaceably
24 receives said primary partition of said terminal block.
- 25 21. The switch as defined in claim 20, wherein said insulative block has
26 a bottom surface; and

1 wherein said second recess in said insulative block extends in said
2 bottom surface of said insulative block.

3 22. The switch as defined in claim 20, wherein said floor of said first
4 recess in said insulative block and said ceiling of said second
5 recess in said insulative block form a partition in said insulative
6 block.

7 23. The switch as defined in claim 22, wherein said partition in
8 insulative block has at least one pair of through slots;
9 wherein each pair of through slots of said at least one pair of
10 through slots in said partition in insulative block are transversely
11 aligned with each other; and
12 wherein each pair of through slot of said at least one pair of
13 through slots in said partition in said insulative block aligns with
14 an associated socket of said at least one socket of said terminal
15 block.

16 24. The switch as defined in claim 20, wherein said second recess in
17 said insulative block is defined by a pair of side walls.

18 25. The switch as defined in claim 24, wherein said pair of side walls
19 of said insulative block has at least one pair of through slots when
20 said at least one secondary partition of said terminal block is
21 present;
22 wherein each pair of through slots of said at least one pair of
23 through slots in said pair of side walls of said insulative block
24 are transversely aligned with each other; and
25 wherein said at least one pair of through slots in said pair of side
26 walls of said insulative block receive an associated secondary
27 partition of said at least one secondary partition of said terminal
28 block.

- 1 26. The switch as defined in claim 1, wherein said current path
2 completer/breaker is generally rectangular-parallelepiped-shaped.
- 3 27. The switch as defined in claim 1, wherein said current path
4 completer/breaker has a handle.
- 5 28. The switch as defined in claim 27, wherein said current path
6 completer/breaker has a top surface; and
7 wherein said handle of said current path completer/breaker extends
8 upwardly from said top surface of said current path
9 completer/breaker.
- 10 29. The switch as defined in claim 27, wherein said handle of said
11 current path completer/breaker is generally T-shaped; and
12 wherein said T-shape of said current path completer/breaker
13 facilitates gripping of said current path completer/breaker when
14 said current path completer/breaker is being disengaged from said
15 insulative block and said terminal block.
- 16 30. The switch as defined in claim 23, wherein said current path
17 completer/breaker has at least one fork; and
18 wherein each fork of said at least one fork of said current path
19 completer/breaker is two pronged.
- 20 31. The switch as defined in claim 30, wherein each fork of said at
21 least one fork of said current path completer/breaker is
22 electrically conductive.
- 23 32. The switch as defined in claim 30, wherein said at least one fork
24 of said current path completer/breaker depends from said current
25 path completer/breaker.

- 1 33. The switch as defined in claim 30, wherein said current path
2 completer/breaker has a bottom surface; and
3 wherein said at least one fork of said current path
4 completer/breaker depends from said bottom surface of said current
5 path completer/breaker.
- 6 34. The switch as defined in claim 30, wherein each fork of said at
7 least one fork of said current path completer/breaker is
8 substantially inverted U-shaped.
- 9 35. The switch as defined in claim 30, wherein each fork of said at
10 least one fork of said current path completer/breaker passes through
11 an associated pair of through slots of said at least one pair of
12 through slots in said partition in said insulative block and
13 engagingly into an associated socket of said at least one socket of
14 said terminal block when said current path completer/breaker is
15 engaged in said insulative block, and in so doing, simultaneously
16 completes the current paths through said terminal block and thereby
17 simultaneously closes the electrical circuits connected to said
18 terminal block and when each fork of said at least one fork of said
19 current path completer/breaker is disengaged from said associated
20 socket of said at least one socket of said terminal block and
21 removed from said associated pair of through slots of said at least
22 one pair of through slots in said partition in said insulative block
23 by said current path completer/breaker being disengaged from said
24 insulative block the current paths through said terminal block are
25 simultaneously broken and thereby the electrical circuits connected
26 to said terminal block are simultaneously opened.